

EXHIBIT 6  
DATE 2/11/09  
HB 446

DEQ OPENCUT MINING PROGRAM • 1520 EAST SIXTH AVENUE • HELENA MT 59620 • PHONE: 406-444-4970 • FAX: 406-444-1923

## GROUND WATER GUIDELINE

Ground water concerns include effects on ground water elevation, flow, and quality either upgradient, around, or downgradient of a mining operation. If proposed mining may approach or enter ground water, an appropriate evaluation of the ground water system must be performed, and an appropriate Plan Of Operation, including a ground water monitoring program, must be proposed.

### PREMINE INFORMATION

Consult the Department to determine if any of the following need to be addressed:

1. Soils and Geology. This information may be obtained from public agencies, via test holes, or by drilling. Give the types and thicknesses of soil, overburden, and mine material, and the bedrock formation lithology (rock type) and name.
2. Hydrogeology. List information sources for all data (landowner, field data, Montana Bureau of Mines and Geology). Monitoring wells and time may be needed to gather some of this information. Give the following information only as needed for the situation under consideration: water bearing formation lithology and name; depth to ground water; thickness of saturation zone; direction of flow; gradient; mapped locations, ground elevations, static water levels from ground surface, uses, total depths from ground surface, and ownership of existing wells in and within at least 1,000 feet of the boundary of all planned excavations; aquifer transmissivity or hydraulic conductivity; and aquifer storativity.
3. Surface Hydrology. Give the locations, descriptions, and uses of surface water features in and within at least 1,000 feet of all proposed excavations.

The operator and the Department will use this information to determine potential ground water impacts and the suitability of the proposed Plan Of Operation.

### GROUND WATER MONITORING

Consult the Department to determine if any of the following need to be addressed:

#### 1. Ground Water Elevation Assessment:

- a. For sites where permanent ground water drainage is not part of the reclamation plan, monitor seasonal ground water elevations to ensure that the reclaimed surface will be either 3 feet or more above the seasonal high ground water elevation for dryland reclamation or, unless otherwise approved, 3 feet or more below the seasonal low ground water elevation for pond reclamation.
- b. Consult the Department about the number and locations of wells. A minimum of one well outside the pit area where it will not be affected by ground water drawdown, and, for dryland reclamation, one well established as soon as possible in a backfilled and graded, central portion of the pit, are required.
- c. Establish a constant measurement point for each well (a point on top of the casing) and report water depths based on ground elevations (depth to water minus height of measurement point above ground). Monitor new wells 24-hours after establishment, monthly for the first 12 months, and quarterly thereafter (January, April, July, and October) to maintain a continuous record of hydrologic conditions, including variations effectuated by local land and water use changes.
- d. Submit well data to the Department in a clear and consistent format immediately following each collection. Include a brief description of significant activities or changes (mining, reclamation, agricultural practices, subdivision, wells) on or adjacent to the site that may account for effects on ground water elevation.
- e. Continue quarterly monitoring for one year after the completion of all backfilling, grading, and soil material replacement, then submit the final monitoring data and a brief report including a statement that the postmining ground water elevations are conducive to the postmining land use or a description of the remedial work needed to accomplish acceptable reclamation.

f. Request Department approval to abandon or transfer the wells (contact the State Board of Water Well Contractors for transfer procedures).

2. Ground water Damming or Dewatering Impact Assessment:

a. Monitor seasonal ground water elevations to ensure that ground water mounding due to impedance of ground water flow, or aquifer dewatering by pumping or free drainage, does not impact surface or ground water resources beyond the boundary of the property containing the mine site.

b. Consult with the Department about the number and locations of wells.

c. Establish a constant measurement point for each well (a point on top of the casing) and report water depths based on ground elevations (depth to water minus height of measurement point above ground). Monitor new wells 24-hours after establishment, monthly for the first 12 months, and quarterly thereafter (January, April, July, and October) to maintain a continuous record of hydrologic conditions, including variations effectuated by local land and water use changes.

d. Two weeks before the start of a dewatering or mining phase, monitor wells once a week. During a dewatering or mining phase, monitor wells on a weekly basis or upon every 100-foot highwall advance, whichever is most frequent. After completion of a dewatering or mining phase, monitor wells once a week for two weeks then resume the appropriate schedule given in 2(c).

e. Submit well data to the Department in a clear and consistent format immediately following each collection. Include a brief description of significant activities or changes (mining, reclamation, agricultural practices, subdivision, wells) on or adjacent to the site that may account for effects on ground water elevation.

f. If ground water elevations are found to be beyond the range of normal seasonal fluctuations, stop dewatering and cease mining in the direction of the affected area, inform the Department of the situation, and continue monitoring. The Department will quickly help determine an appropriate course of action.

g. Continue quarterly monitoring for one year after completion of mining and dewatering, then submit the final monitoring data and a brief report including a statement that the postmining ground water elevations are acceptable or a description of the remedial work needed to accomplish acceptable elevations.

h. Request Department approval to abandon or transfer the wells (contact the State Board of Water Well Contractors for transfer procedures).

## WELL INSTALLATION AND ABANDONMENT

1. A monitoring well is any well that will be used to measure ground water quantity or quality. A licensed monitoring well constructor must be employed to install each well according to state requirements. The Department may require surveyed ground elevations at each well. Send a copy of each well log report and other pertinent information to the Department immediately after well completion.

2. A monitoring well no longer needed for its intended use, and not transferred to the landowner as a water well, must be abandoned in compliance with state requirements. Abandonment involves leaving the casing in place, grouting the hole from bottom up, cutting the casing off 3 feet below the ground surface, and backfilling the remainder of the hole with soil material.

3. Immediately after well abandonment or transfer, submit a well abandonment or transfer report to the Department.

**COMPLAINT/SPILL REPORT**  
**MONTANA DEPT. OF ENVIRONMENTAL QUALITY**  
*(INSTRUCTIONS ON BACK)*

**PLEASE FILL OUT AS COMPLETELY  
AS POSSIBLE**

Complaint Report? Y\_\_ N\_\_      Spill Report? Y\_\_ N\_\_  
 Method of Receipt: Phone \_\_\_\_ Mail \_\_\_\_ Field \_\_\_\_ Other \_\_\_\_

Report Completed By:

Bureau/Program:

Report Date:

Time:

Phone:

**COMPLAINANT  
INFORMATION**

Name:

Phone:

Address:

Zip:

Reply Requested? Y\_\_ N\_\_

Other Agencies Contacted By Complainant:

Anonymity Requested? Y\_\_ N\_\_

**REPORTING INFORMATION**

Responsible Party (person or company):

Mailing Address:

Zip:

Contact Person:

Phone:

Complaint/Spill Location:

Incident County:

Facility ID:

Driving Directions:

Detailed Site Location: T: \_\_\_\_ R: \_\_\_\_ Section: \_\_\_\_ Sec. \_\_\_\_ Lat: \_\_\_\_ Long: \_\_\_\_ GIS: \_\_\_\_

**DESCRIPTION OF INCIDENT**

Date observed: \_\_\_\_\_ Duration of activity: \_\_\_\_\_

Describe Complaint:

Impact to: Soil \_\_\_\_ Water \_\_\_\_ Air \_\_\_\_ Other \_\_\_\_

Water Body Name:

Type and Amount of Pollutant:

MCA/ARM Violation Citation:

**INITIAL ACTIONS/  
RECOMMENDATIONS**

**ENFORCEMENT DIVISION USE ONLY**

Complaint/Violation ID#:

Complaint Type:

Assign:

Status:

Referred:

FITS Site Name:

Incident Site Name:

## **INSTRUCTIONS FOR COMPLETING THE COMPLAINT/SPILL REPORT FORM**

**All Divisions within DEQ will utilize this form to collect accurate and consistent information regarding complaints and spills, and submit the completed report to the Complaint Management Section of the Enforcement Division.** The uniform report form was created in an effort to provide better public service and track spills and complaints directed to the Department of Environmental Quality. It is also being made available for use by other agencies, local health departments, and concerned citizens.

This form may be completed in either electronic format or hardcopy. The blank forms may be retrieved from the DEQ share directory: ...Complaint.doc (electronic fill-in version) or Complaint Hardcopy.doc (hardcopy). The hard copy version of the complaint form is available for out-of-house users via the Internet by accessing DEQ's home page. **All completed reports are to be sent directly to: DEQ-Enforcement Division, Complaint Management Section, P.O. Box 200901, Helena, Montana 59620-0901 Attn: Ed Coleman. If returning completed forms through Outlook or the Internet send to: [ecoleman@mt.gov](mailto:ecoleman@mt.gov).**

**Please make every effort to fill out the form as completely as possible.** You will note that this form is intended to be utilized for both complaints and spills. Please make sure that you check whether you are preparing the report as a response to a complaint or a spill.

**COMPLAINANT INFORMATION:** The Department will respect those requesting anonymity by keeping complainant names confidential. Please get a name and phone number in case further information is needed to provide a thorough investigation. In order to prevent duplication of efforts, try to find out what other agencies have been contacted by the complainant or caller.

**REPORTING INFORMATION:** Please try to gather sufficient information so that the responsible party can be contacted. If this is not possible, be especially diligent in reporting an accurate location of the complaint/spill. Include any landmarks, mile marker, and/or directions necessary to visit the site. Although a detailed legal description may not always be obtained in the initial contact, please try to record the information if available.

**DESCRIPTION OF COMPLAINT/SPILL:** Obviously, the information reported in this section is critical to the Department's understanding of the situation toward a satisfactory resolution. Please be concise and detailed. Although such items as Type and Amount of Pollutant, Area Impacted, Cleanup Procedures are more pertinent to spill reporting, they can be used for complaint reporting. If additional space is required, please use the open space below, or attach additional paper when submitting hard copy. If the incident you are reporting has an MCA or ARM citation pertinent to your Division/Bureau, please make sure to record the cite(s).

**SUGGESTED ACTION/ACTION TAKEN:** Often times a complaint/spill may be resolved by a simple phone call, or by discussion with other DEQ staff who may already be familiar with the situation. This section is to be used to record efforts made to either close the complaint or action taken toward satisfactory closure. The Complaints Management Section of the Enforcement Division will serve as the clearinghouse to validate, track, request follow up from DEQ staff (if necessary), and document the status of each individual complaint or spill.

**Report Continued:**

[illegible]



# WATER USE COMPLAINT

Mail the completed form to the DNRC Regional Office listed on the back page serving your county.

Name of Party Filing Complaint: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Phone: \_\_\_\_\_

Name of Appropriator Allegedly Causing Problem: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Phone: \_\_\_\_\_

1. Water right(s) being affected: (see DNRC records for your water right numbers.)  
\_\_\_\_\_

2. Source of water: \_\_\_\_\_  
(USGS named stream, unnamed tributary to a USGS named stream, well, spring)

3. Location of your diversion or place of use: (Attach a scaled map or aerial photo showing the location.)

\_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ N/S Rge. \_\_\_\_\_ E/W County \_\_\_\_\_

4. Location of the other appropriator's diversion or place of use:

\_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ N/S Rge. \_\_\_\_\_ E/W County \_\_\_\_\_

5. Describe the nature of the problem, what the appropriator is doing and how it is affecting your use of water: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_